CLAIMS:

What is claimed is:

1. A method of reading data from a mirrored logical volume, comprising:

receiving a read request directed to a mirrored logical volume;

retrieving characteristic information for each of a plurality of physical storage devices associated with mirrors of the mirrored logical volume;

applying one or more rules to the characteristic information to select a physical storage device from the plurality of physical storage devices to which the read request is to be directed; and

reading the data from the selected physical storage device.

2. The method of claim 1, wherein the characteristic information includes at least one of whether a corresponding physical storage device includes a write cache, whether a corresponding physical storage device includes a read-ahead cache, a speed of a corresponding physical storage device, and a connection type of a corresponding physical storage device.

3. The method of claim 2, wherein the characteristic information further includes operational history information.

4. The method of claim 3, wherein the operational history information includes at least one of an amount of time that a corresponding physical storage device has been in service and a failure history of a corresponding physical storage device.

5. The method of claim 1, wherein the characteristic information is stored in a physical storage device information data structure associated with a storage subsystem.

6. The method of claim 1, wherein the characteristic information is stored in a physical storage device information data structure associated with a logical volume manager.

7. The method of claim 1, wherein the characteristic information is stored in a data structure generated during initiation of a logical volume.

8. The method of claim 7, wherein the characteristic information is automatically obtained by querying the physical storage devices in the plurality of physical storage devices during initiation of the logical volume.

9. The method of claim 7, wherein the characteristic information is obtained from user input during initiation of the logical volume.

10. The method of claim 1, wherein the method is performed by a logical volume manager.

11. A computer program product in a computer readable medium for reading data from a mirrored logical volume, comprising:

first instructions for receiving a read request directed to a mirrored logical volume;

second instructions for retrieving characteristic information for each of a plurality of physical storage devices associated with mirrors of the mirrored logical volume;

third instructions for applying one or more rules to the characteristic information to select a physical storage device from the plurality of physical storage devices to which the read request is to be directed; and

fourth instructions for reading the data from the selected physical storage device.

12. The computer program product of claim 11, wherein the characteristic information includes at least one of whether a corresponding physical storage device includes a write cache, whether a corresponding physical storage device includes a read-ahead cache, a speed of a corresponding physical storage device, and a connection type of a corresponding physical storage device.

13. The computer program product of claim 12, wherein the characteristic information further includes operational history information.

14. The computer program product of claim 13, wherein the operational history information includes at least one of an amount of time that a corresponding physical storage device has been in service and a failure history of a corresponding physical storage device.

15. The computer program product of claim 11, wherein the characteristic information is stored in a physical storage device information data structure associated with a storage subsystem.

16. The computer program product of claim 11, wherein the characteristic information is stored in a physical storage device information data structure associated with a logical volume manager.

17. The computer program product of claim 11, wherein the characteristic information is stored in a data structure generated during initiation of a logical volume.

18. The computer program product of claim 17, wherein the characteristic information is automatically obtained by querying the physical storage devices in the plurality of physical storage devices during initiation of the logical volume.

19. The computer program product of claim 17, wherein the characteristic information is obtained from user input during initiation of the logical volume.

20. The computer program product of claim 11, wherein the computer program product is part of a logical volume manager.

21. An apparatus for reading data from a mirrored logical volume, comprising:

means for receiving a read request directed to a mirrored logical volume;

means for retrieving characteristic information for each of a plurality of physical storage devices associated with mirrors of the mirrored logical volume;

means for applying one or more rules to the characteristic information to select a physical storage device from the plurality of physical storage devices to which the read request is to be directed; and

means for reading the data from the selected physical storage device.

22. A method, in a data processing system, for selecting a storage device from which to read data, comprising:

storing information into a user input database, wherein the information identifies characteristics of at least one storage device;

reading, by a device driver, upon mirror activation and initialization, the information for the at least one storage device in the user input database; and

selecting an optimal storage device to send a read request to based upon the information for the at least one storage device read from the user input database.

23. The method of claim 22, wherein the information includes at least one of whether a corresponding storage device includes a write cache, whether a corresponding storage device includes a read-ahead cache, a speed of a corresponding storage device, and a connection type of a corresponding storage device.

24. The method of claim 23, wherein the information further includes operational history information.

25. The method of claim 24, wherein the operational history information includes at least one of an amount of time that a corresponding storage device has been in service and a failure history of a corresponding storage device.

26. The method of claim 22, wherein the information is stored in a storage device information data structure associated with a storage subsystem.

27. The method of claim 22, wherein the information is stored in a storage device information data structure associated with a logical volume manager.

28. The method of claim 22, wherein the information is stored in a data structure generated during initiation of a logical volume.

29. The method of claim 28, wherein the information is automatically obtained by querying the physical storage devices in the plurality of physical storage devices during initiation of the logical volume.

30. The method of claim 28, wherein the information is obtained from user input during initiation of the logical volume.